ORTHOPEDIC IMPLANT INSERTER WITH REMOVABLE JAWS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit under Title 35, U.S.C. §120 of U.S. Design patent application Ser. No. 29/362,747, filed on May 28, 2010 and entitled PROSTHESIS IMPACTION AND EXTRACTION TOOL.

BACKGROUND

1. Field of the Disclosure

The present subject matter relates to systems and methods for delivering a device to a selected location within the body. More particularly, the present subject matter relates to an inserter for deploying an orthopedic component or implant within the body and methods of using the same.

2. Background

Various devices are known for inserting, positioning, and/or impacting orthopedic implants or "provisionals" (i.e., temporary implant simulators for ascertaining the proper size and shape for a permanent implant) in orthopedic procedures. These devices will be collectively and interchangeably referred to herein as "orthopedic implant inserters" or "implant inserters" or "inserters," for short, and though illustrated in the context of insertion of a femoral component in an orthopedic knee procedure, such inserters may be used with other body implants (e.g., implants in the tibial baseplate region) and the present disclosure is not limited to inserters used only with femoral implants. Also, as used herein, "implants" includes actual implants, implant components, and provisionals.

Implant inserters have been commercially available in a variety of shapes and configurations. Typically, such implant inserters have been relatively large, with associated weight and ergonomic shortcomings. Further, orthopedic procedures often involve physically impacting or hammering the inserter with a mallet to install the implant. Over time, this usage can damage the inserter itself and result in undesirable wear and tear to that portion of the inserter to which the implant is temporarily mounted during implantation. To prevent damaging the implant, the entire inserter is periodically replaced with a costly new one.

Thus, there continues to be a need for implant inserters that advance the state of the art of implant inserter design and that may address one or more shortcomings of prior devices including, but not limited to, those mentioned above.

SUMMARY

In accordance with one aspect of the present disclosure, an orthopedic implant inserter comprises first and second facing handles joined for relative movement toward and away from one another. A first implant-engaging member is mounted on the first handle and a second implant-engaging member is mounted on the second handle. At least one of the implant-engaging members is removably mounted on the associated handle.

In accordance with another aspect of the present disclosure, an orthopedic implant inserter comprises first and second facing handles joined for relative movement toward and away from one another. A first implant-engaging jaw is removably mounted to the first handle and a second implant-engaging jaw is removably mounted to the second handle. Each implant-engaging jaw is pivotal with respect to the associated handle and removably secured thereto by a retainer. Each retainer is movable between a retaining configuration in which the implant-engaging jaw is secured to the associated handle and a release configuration in which the implant-engaging jaw is removable from the associated handle. Each retainer engages and biases the associated implant-engaging jaw to a selected pivotal position when in the retaining configuration.

In accordance with yet another aspect of the present disclosure, an orthopedic implant inserter jaw is provided for removable mounting on the handle of an orthopedic implant inserter configured to receive a retainer that includes a shaft and a latch cooperatively associated with the shaft and which retainer is movable between a retaining configuration in which the retainer is secured to the handle and a release configuration in which the retainer is removable from the handle. The jaw comprises a base, a through bore in the base for removably receiving a shaft of a retainer, and an implant support and impact surface on the base. The jaw further includes an implant-engaging surface carried on the base for engaging an implant in a desired position with respect to the base and an orientation structure on the base that cooperates with a retainer latch for orienting the jaw in one position on the handle.

As made clearer below, there are several aspects of the present subject matter which may be embodied separately or together in the methods and systems described and claimed below. These aspects may be employed alone or in combination with other aspects of the subject matter described herein, and the description of these aspects together is not intended to preclude the use of these aspects separately or the claiming of such aspects separately or in different combinations as set forth in the claims appended hereto.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a front elevational view of an orthopedic implant inserter according to a prior art design;

FIG. **2** is a front elevational view of an orthopedic implant inserter according to an aspect of the present disclosure;

FIG. **3** is a perspective view of the inserter of FIG. **2** engaged with an implant;

FIG. **4** is a perspective view of the inserter of FIG. **2**;

FIG. **5** is an exploded view of the inserter of FIG. **2**;

FIG. **6** is a perspective detail view of a handle, jaw, and retainer of the inserter of FIG. **2**, with the retainer in a retaining configuration;

FIG. **7** is an exploded view of the handle, jaw, and retainer of FIG. **6**, with the retainer in a release configuration;

FIG. **8** is a perspective view of the jaw and retainer of FIG. **6** taken from a different viewpoint than FIG. **6**, with the handle omitted for illustrative purposes;

FIG. **9** is an exploded perspective view of the jaw and an implant support and impact surface of FIG. **6**;

FIG. **10** is a front elevational view of the jaw and support surface of FIG. **6**;

FIG. **11** is a side elevational view of the assembled jaw and support surface of FIG. **10**;

FIG. **12** is a cross-sectional view of the jaw and support surface of FIG. **11**, taken through the line **12-12** of FIG. **11**;

FIG. **13** is a front elevational view of the jaw of FIG. **6**, with the support surface omitted;

FIG. **14** is a cross-sectional view of the jaw of FIG. **12**, taken through the line **14-14** of FIG. **13**;

FIG. **15** is a perspective view of a retainer of FIG. **2** in a retaining configuration;

FIG. **16** is an exploded view of the retainer of FIG. **15**;